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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,945	07/24/2003	Dennis J. Jones JR.	03269.0109U1	3664

23859 7590 06/22/2010

Ballard Spahr LLP
SUITE 1000
999 PEACHTREE STREET
ATLANTA, GA 30309-3915

EXAMINER	
OGDEN JR, NECHOLUS	
ART UNIT	**PAPER NUMBER**
1796	
MAIL DATE	**DELIVERY MODE**
06/22/2010	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DENNIS J. JONES, JR.

Appeal 2009-008353
Application 10/627,945
Technology Center 1700

Decided: June 22, 2010

Before ADRIENE LEPIANE HANLON, LINDA M. GAUDETTE, and KAREN M. HASTINGS, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 45, 47-53, and 70-82 (Final Office Action ("Final"), mailed May 17, 2007, 1), the only claims pending in the application. (Appeal Brief ("App. Br."), filed Jan. 2, 2008, 2.) We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

The Examiner maintains (Examiner's Answer ("Ans."), mailed Dec. 2, 2008, 3-6), and Appellant requests review of (App. Br. 3), the following grounds of rejection:

1. Claims 45, 47-50, and 52 under 35 U.S.C. § 103(a) as unpatentable over De Lathauwer (US 5,738,688, issued Apr. 14, 1998);

2. Claims 45 and 47 under 35 U.S.C. § 103(a) as unpatentable over Gamblin (US 4,482,646, issued Jun. 27, 1989);

3. Claims 45 and 47 under 35 U.S.C. § 103(a) as unpatentable over Fekete (US 4,094,701, issued Jun. 13, 1978);

4. Claims 51, 53, 70-76, and 78-82 under 35 U.S.C. § 103(a) as unpatentable over De Lathauwer in view of Jones (US 5,520,962, issued May 28, 1996); and

5. Claim 77 under 35 U.S.C. § 103(a) as unpatentable over De Lathauwer in view of Jones[1] and further in view of Gurley (US 5,403,362, issued Apr. 4, 1995).

The invention is directed to methods and compositions for treating fibers such as carpet yarns. (Specification ("Spec.") 1:10-11.) Independent claims 45, 70 and 80, and dependent claim 72, are illustrative of the invention and are reproduced below from the Claims Appendix to the Appeal Brief:

45. An aqueous treating composition comprising tannic acid having a gallic acid content of less than about 1.0 parts by weight (pbw), wherein

[1] The Examiner failed to include Jones in the statement of the ground of rejection. We view this as harmless error since it is clear from the discussion of the rejection that Jones is also relied upon. (*See* Final 4-5; Ans. 5-6; Br. 11 (acknowledging error).)

the tannic acid is present in the aqueous treating composition at up to about 0.5 pbw, based on a total weight of the aqueous treating composition.

70. A two-part aqueous treatment comprising:
a. a first aqueous treating composition comprising tannic acid; and
b. a separate second topical treating composition comprising a fluorochemical.

72. The aqueous treatment of claim 70, wherein the tannic acid has a gallic acid content of less than about 1.0 part by weight, based on a total weight of the aqueous treating composition.

80. A fiber, yarn or carpet comprising tannic acid and a topically applied fluorochemical.

ISSUES

Appellant traverses the rejections of claims 45, 47-53, and 72 on the basis that the Examiner erred in determining it would have been a matter of routine optimization to adjust the amount of gallic acid present in the primary references to achieve a composition as claimed.[2] Appellant also argues the evidence of record shows superior results obtained from the gallic acid content recited in claims 45, 47-53, and 72, relying on the Declaration under 37 C.F.R. § 1.132 of Dennis J. Jones, Jr. (Br., Evidence App.), which

[2]With respect to the first three grounds of rejection, Appellant has not presented separate arguments in support of patentability of any particular dependent claim or claim grouping (*see* Br. 4-8). Therefore, we decide the patentability of all claims subject to these rejections on the basis of independent claim 45. With respect to the fourth ground of rejection, we separately consider the patentability of claim 72, as well as claims 51 and 53 (which depend from claim 45), on the basis of the same arguments made in connection with the first three grounds of rejection (*see* Br. 8-10 (arguing the gallic acid content limitation in claims 45 and 72)). The remaining claims subject to the fourth ground of rejection stand or fall with independent claim 70 (*see* Br. 9-10). (*See also*, Br. 3 § (6).)

includes a discussion of the test results in the Specification. With respect to claims 70-82 (*see* fourth and fifth grounds of rejection), Appellant relies on the Jones Declaration to show superior results obtained from the combination of tannic acid and a fluorochemical. Appellant contends that the aforementioned superior results weigh in favor of non-obviousness as to the appealed claims.

Appellant's arguments present the following issues for our review:

1. Did the Examiner err in finding that one of ordinary skill in the art at the time of the invention would have recognized that adjustment of gallic acid content within tannic acid could achieve a recognized result such that it would have been obvious to have optimized the gallic acid content of the tannic acids in the primary references to achieve the gallic acid content recited in claims 45 and 72?

2. Did the Examiner err in finding that the Jones Declaration fails to establish superior results obtained from the gallic acid content recited in claims 45 and 72, and in concluding that the weight of the evidence, taking into account the Jones Declaration, weighs in favor of obviousness?

3. Did the Examiner err in finding that the Jones Declaration fails to establish superior results in the combination of tannic acid and a fluorochemical recited in claims 70 and 77, and in concluding that the weight of the evidence, taking into account the Jones Declaration, weighs in favor of obviousness?

We answer the foregoing questions in the negative for the reasons stated in the Examiner's Answer, which we expand upon below.

FINDINGS OF FACT ("FF")

We adopt the Examiner's findings in the Answer and Final. We rely, in particular, on the following findings in our discussion of the above-noted issues:

1. De Lathauwer discloses a process to improve the resistance to stains on fibers (col. 1, ll. 7-8) by treating the substrate with a solution containing 1 to 6 weight % active component, consisting of 10 to 90% tannic acid component (col. 2, ll. 20-24).

2. De Lathauwer discloses that "[t]he term 'tannic acid' . . . should be understood in a broad sense, and covers products containing tannic acid" (col. 2, ll. 44-47). De Lathauwer indicates that "any commercial tannic acid can be used" (col. 2, ll. 66-67).

3. Fekete discloses the use of tannic acid in a cleaning solution inhibits etching of a tin surface. (Col. 2, ll. 16-20.)

4. Gamblin discloses that both tannic acid and gallic acid are known insolubilizing agents (also known as mordants) which render dyes water insoluble (col. 2, ll. 19-23.)

5. One of ordinary skill in the art at the time of the invention would have been aware that tannic acid is a mixture of compounds consisting of a glucose-chain substituted with gallic acid. (*See* De Lathauwer, col. 2, ll. 48-51; *cf.* Jones Dec. ¶¶ 5-7.) One of ordinary skill in the art at the time of the invention would have been aware that gallic acid is acquired by the hydrolysis of tannic acid; it would have been within the level of skill of the ordinary artisan to arrive at the gallic acid content of a commercial tannic acid. (Ans. 6; *cf.* Jones Dec. ¶¶ 5-7.)

ANALYSIS

Issue 1

Appellant argues "there is simply no disclosure in any of the cited references that evidences a recognition of any relationship whatsoever between gallic acid content and effectiveness of stain resistance." (Br. 6.) The record before us establishes that tannic acid and gallic acid are useful for improving stain resistance. In particular, the Examiner finds that "[t]he prior art of record teaches that tannic acid is effective in treating/dyeing textiles or fabrics, which provides the skilled artisan sufficient motivation to recognize the effectiveness of tannic acid and its content of gallic acid in textile treating/dyeing compositions" (Ans. 7; *see also*, Final 6 (noting that gallic acid is acquired by the hydrolysis of tannic acid and that the prior art's indication "that any commercially available tannic acid can be used is a reasonable assumption that tannic acids of a range of gallic acid contents could be employed in a beneficial or synergistic manner"); Gamblin, col. 2, ll. 19-23 (evidencing tannic acid and gallic acid are known insolubilizing agents)).

The rationale for determining the optimal parameters for prior art result effective variables "flows from the 'normal desire of scientists or artisans to improve upon what is already generally known.'" *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1368 (Fed. Cir. 2007) (*quoting In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003)). When patentability is predicated upon a change in a condition of a prior art composition, such as a change in concentration or the like, the burden is on Appellant to establish with objective evidence that the change is critical, i.e. it leads to a new unexpected result. *In re Woodruff,* 919 F.2d 1575, 1578 (Fed. Cir. 1990).

In our view, the Examiner provided a reasonable basis for concluding that it would have been obvious to have optimized the gallic acid content of the tannic acids used in the De Lathauwer, Gamblin, and Fekete compositions. The prior art explicitly discloses that tannic acids are useful in cleaning compositions and in improving stain resistance of fiber. (FF 1-5.) There is a known correspondence between tannic acid and gallic acid, i.e., they are both insolubilizing agents and gallic acid is acquired by the hydrolysis of tannic acid (*see* Ans. 3-4 and 6 (last para.); FF 4-5). Because the Examiner properly established a prima facie case of obviousness as to claims 45, 47-53, and 72, the burden was shifted to Appellant to establish, with objective evidence that the claimed gallic acid content (recited in claims 45 and 72) is critical, i.e. it leads to a new unexpected result.

Issue 2

To establish unexpected results in the use of the gallic acid content recited in claims 45 and 72, Appellant relies on the Jones Declaration.

The Board is entitled to weigh declarations expressing opinions as to fact and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004).

We are in agreement with the Examiner's reasons for concluding that this Declaration fails to provide evidence of criticality in Appellant's claimed gallic acid content, i.e., it is not apparent that a comparison was made with the closest prior art. (*See* Final 5; Ans. 8.) We also find the Jones Declaration lacks persuasive merit because: (1) Mr. Jones is the sole inventor of the present invention and not a disinterested party (Jones Dec. ¶ 1), *see In re Bulina*, 362 F.2d 555, 559 (CCPA 1966) ("[A]n affidavit by an

applicant or co-applicant as to the advantages of his invention is less persuasive than one made by a disinterested person."); and (2) the Caustic 10 test fails to include samples of tannic acids having a gallic acid content just outside the upper limit of the claimed range and, therefore, fails to establish criticality in the recited upper limit of gallic acid (*see* Jones Dec. ¶¶ 16-23 (gallic acid content of the comparative sample closest to the upper limit of the claimed range is 2.87%); Br. 8, ll. 3-5 (discussing comparison evidence)).

Issue 3

To establish unexpected results in the combination of tannic acid and a fluorochemical as recited in claims 70 and 77, Appellant relies on the Jones Declaration which states that "unexpectedly superior stain resistance . . . is achieved when applying a two-part aqueous treatment" (Jones Dec. ¶ 25). (Br. 10-11.) As pointed out by the Examiner, this evidence is not commensurate in scope with the claims because the "claims are directed to a composition and the order of addition or combination bears no relevance." (Ans. 7.)

Moreover, Appellant has not shown that any difference between the results obtained through the claimed invention and those of the prior art would have been unexpected by one skilled in the art at the time of the invention. *See In re Freeman*, 474 F.2d 1318, 1324 (CCPA 1973). The mere allegation that "unexpectedly superior stain resistance" is achieved (Jones Dec. ¶ 25) does not suffice. *See In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d at 1368.

In sum, Appellant has not persuaded us the Examiner erred in concluding that the evidence of record, taking into account Appellant's evidence of unexpected results, weighs in favor of obviousness as to the appealed claims.

CONCLUSION

Appellant has not persuaded us of error in the Examiner's obviousness determination. Therefore, we sustain all five grounds of rejection. The decision of the Examiner rejecting claims 45, 47-53, and 70-82 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED

PL Initial:
sld

Ballard Spahr LLP
SUITE 1000
999 PEACHTREE STREET
ATLANTA GA 30309-3915